User Manual

Embedded Speech Module

D-3301C
D-3301D
D-3300

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Version: D-3301_2013V1.0.

NOTICE: Please read this user manual carefully and take notice of *Safety Operation Guide* before using this product.

This manual is only for operation instruction, not for any maintenance usage. The functions described in this version are updated till December 2013. Any changes of functions and parameters since then will be informed separately. Please refer to the dealers for the latest details.

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All product function is valid till 2013-12-12.

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1. Introduction

1.1 Introduction to Embedded Speech module (D-3301)

Embedded Speech module is a discussion module of Embedded Conference System, including two kinds of discussion units: chairman units (D-3301C) and delegate units (D-3301D).

1.2 Features

- Digital audio for good sound quality.
- Special, simple and beautiful appearance design.
- Built-in high-fidelity speaker with good audio quality and automatically muting function when turn off the microphone to isolate noise.
- Detachable microphone rod for easy operation and maintenance, with Speak key and indicator with two colors for control.
- Resistant to interference of GSM signal effectively.
- The chairman unit has the highest priority to keep order of the meeting. It can switch off /pause the speaking of any delegate unit.
- The chairman unit with ID A001 is able to allow or reject any delegate's presentation proposal.

1.3 Package Contents

1.3.1 Embedded Speech module (D-3301)

- 1×Mounting bracket
- 2×Nuts
- 2×Set bolts
- 1×Butterfly screw
- 1×Rotatory microphone tube
- 1×Microphone wind cover
- 1×Shielded Twisted Pair (Black, Length: 1m, Shielded outer, parallel line)

Note: All items listed above will be packed in a chairman unit or a delegate unit.

1.3.2 Audio Box (D-3300)

- 1×D-3300
- 2×Hangers
- 4×Screws (Black)
- 1×Shielded Twisted Pair (Black, Length: 2m, Shielded outer, crossing-line, (568B-A))

Notes：Please confirm if the product and the accessories are all included, if not, please contact with the dealers.

2. Embedded Speech Module

2.1 Appearance

2.1.1 Top Panel

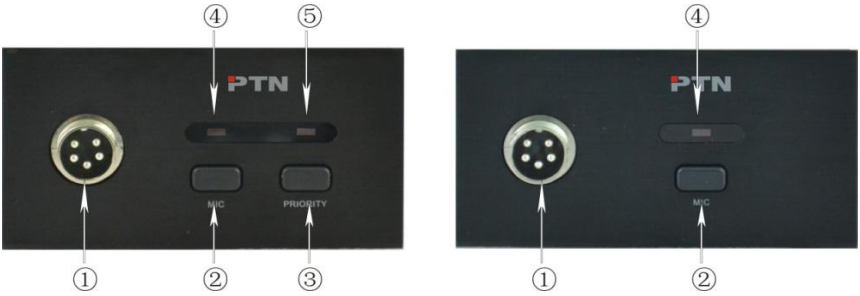


Figure 2-1 Top panels of a chairman unit and a delegate unit

① Mic port

Connect with detachable microphone

② Speak key

- Press this key to switch on microphone, and ④ will turn red and keep on.
- Press this key again to switch off microphone, ④ turns off.

③ Priority key (for chairman unit D-3301C only)

Keep pressing this key to mute or switch off all live microphones according to different prior speech mode.

④ LED Indicator for Speak key

Turn red and keep on when microphone is on.

⑤ LED Indicator for Priority key

Turn red when the priority key is held on.

2.1.2 Bottom Panel

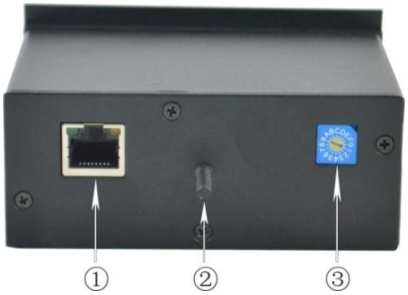


Figure 2-2 Bottom panel

① RJ45 port
Connect to an audio box with a straight-through cable.

② Set screw
Fix mounting bracket to unit.

③ Encoder
- Distinguish the units connected to the same audio box.
- The value is either 1 or 4. If the code is “1”, the unit should be connected to port “2” for speech module on the audio box; and if the code is “4”, the unit should connect to port “1”.

3. Installation of D-3301

3.1 Detachable Microphone Rod Connection

The microphone used in a speech module is designed with a removable rod, for easy replacing.

Figure 3-1 Removable Microphone Rod

① Electret cardioid pickup pattern microphone

② LED ring indicator with two colors
- Turns red and keeps on when switch on the microphone.
- Turns green and keeps blinking when applying for speaking or enter in reminding period before reaching the limited speaking time.

③ Metal tube, with angle and direction adjustable.

④ Rotation microphone plug, you can take off the microphone by loosening this plug.

To ensure a good quality of sound, a microphone wind cover is better to be used.

Figure 3-2 Microphone Wind Cover

Insert the wind cover into the microphone, hold and rotate it clockwise until you hear a special sound (unable to rotate any more). And when you need to take off the cover,

rotate it anticlockwise and pull out it hard.

3.2 Installation of D-3301

Firstly, dig a hole on the desk to the size marked on the aperture paper (shown in Figure 3-3).

Then put the speech module into the hole and adjust it to flush with the table. Fix the mounting bracket to the module (shown in Figure 3-4).

Plug a set screw into the fixing mounting and screw the nuts (with butterfly screw on the top) until the module arrives at the bottom.

After that, the speech module is fixed on the table.

Figure 3-3 aperture paper

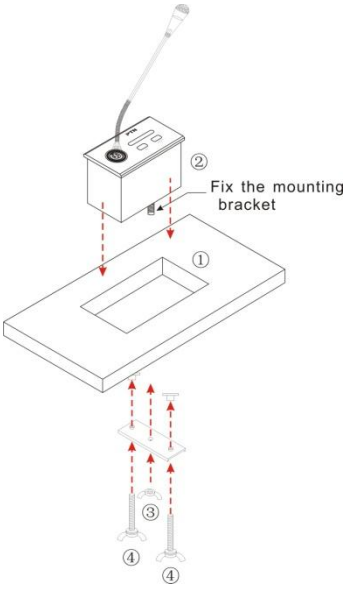


Figure 3-4 Installation of D-3301

4. System Connection

4.1 Connection between Embedded Speech Modules and Audio Box

Embedded Speech Modules are linked to control unit via Audio Boxes (D-3300).

Figure 4-1 Appearance of Audio Box D-3300

① FIRMWARE
USB port, upgrade the firmware version

② Input

Connect to the OUTPUT port of the last audio box. (Connect the INPUT port of the first audio box to the OUTPUT port of control unit.)

③ Output

Connect to the INPUT port of next audio box.

④ Audio Output

Connect with amplifiers to output audio.

⑤ MIC

Connect to speech modules. Port “1” is only for the unit whose code is “4”; port “2” is only for the one with code “1”.

⑥ Interpretation

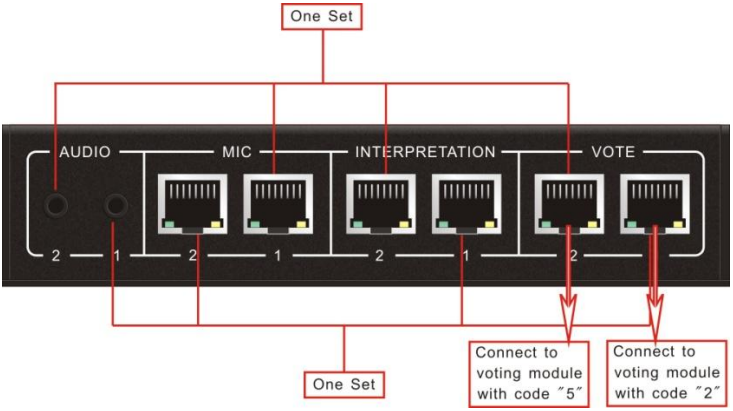
Connect with interpretation module to tackle language barriers. Port “1” is only for the unit whose code is “3”; port “2” is only for the one with code “6”.

⑦ Vote

Connect with voting module. There is no special connection limit for Voting modules.

Note:

1. An audio box is able to connect with two embedded conference units. Every unit includes an audio amplifier, a speech module, an interpretation module, and a voting module. The amplifier connected to Audio port 1, the speech module with code 1, the interpretation module with code 3 and the voting module with code 2 are in the same set. While the rest modules connected form another set as shown below:



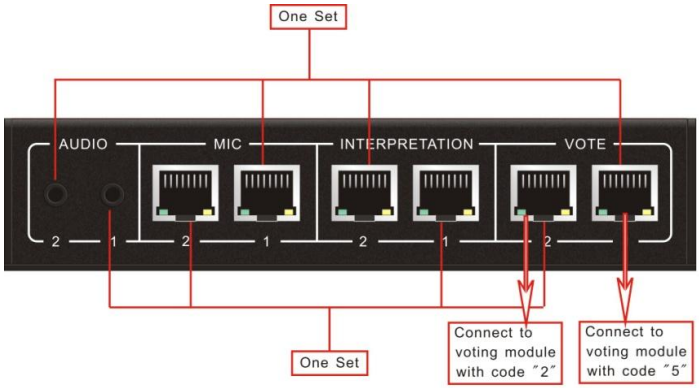


Figure 4-2 Connection guide of D-3300

2. Within the same set, when connecting headphones to interpretation modules, there will be no sound output from the amplifier.
3. Within the same set, when the speech module is holding a speech, interpretation will work normally while the amplifier will be muted.

4.2 Connection between Embedded Speech Module and control unit

Connect a speech module and an audio box with parallel twisted line; connect an audio box with another audio box or a control unit with crossing twisted line.

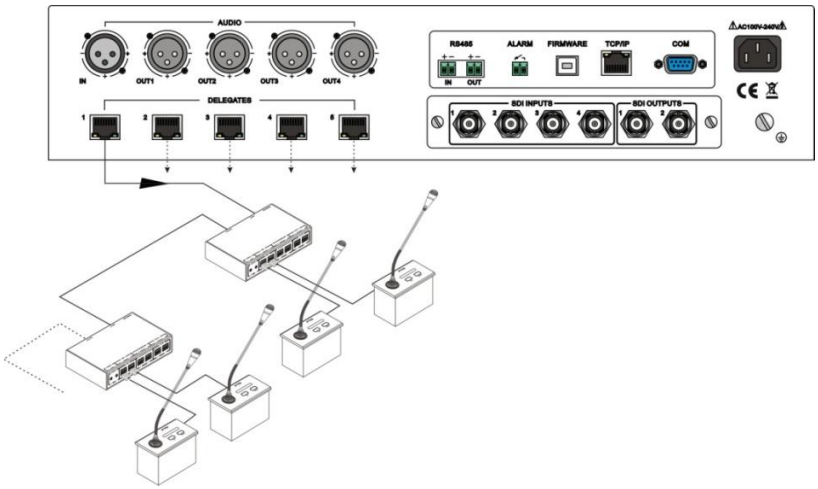


Figure 4-3 Connection Diagram

4.3 Speech Module Connection

Step 1: Connect the INPUT port of the audio box to the RJ45 output port of the control unit with twisted line. Please connect the OUTPUT port of the audio box to the INPUT port of next audio box. Connect other audio boxes with the same operations.

Step 2: Connect speech modules with audio boxes. Every audio box is able to connect with two speech modules, port “1” is for the module with code “4”, and port “2” is for the module with code “1”.

5. D-3301 Operation Instructions

Before a meeting, the administrator should set the system parameters, such as address, checking the status etc. Then the attendees are able to use the devices.

5.1 Setting ID Address

To ensure the validity of connection between discussion unit and control unit, the administrator needs to set unit address if first use this system or have any changes of amount or replacement.

When you need to set the address, please enter in the menu System Setting, select ID Setting. The default first ID for each discussion unit is A001. After setting the first address, please press Enter button.

At the same time, LED indicators on each discussion unit connected will keep blinking to remind you to set the addresses, until you press any button (not the Priority button on chairman unit) on this discussion unit.

When you press one button, the control unit will recognize your unit and automatically set an ID for your unit. The LED indicators on your unit will be off. The other discussion units share the same operations with this example.

After finishing setting ID addresses, the system will automatically begin to initialize. Then the chairman unit with ID A001 will be able to control the other units.

Note: If you select **Apply** speech mode in off-line state, to make it available, the 001 unit has to be a chairman unit.

5.2 Speaking

Press Speak key to start speaking. The speaking function depends on the settings of the control unit.

5.2.1 Chairman unit:

Priority and Decision right, no capacity limitation.

1. Priority right

Chairman unit has the prior right to speak, and there is “Priority” key on this unit.

a) Mute: In Mute mode, when a chairman unit needs to speak prior to other delegate units, just press and hold on this key to mute the speaking delegate units. Release this key to return to the former statue.

b) Off: When the prior speech mode is set to Off, chairman unit press Priority key to switch off other speaking delegate units’ microphones. Delegate units have to press Speak key again to turn on the microphones.

2. No speech capacity limitation

a) Speech mode is **VOICE**: Speak and focus closed to the microphone to switch on the microphone. It will be automatically switched off when stop speaking for a while.

b) Speech mode is **PTT**: Press and **hold on** Speak key to switch on your microphone, release it to switch off.

c) In other speech modes, press Speak key to switch on your microphone, press it again to switch it off when you finish speaking.

3. Decision right (for chairman unit with ID A001 only)

If the speech mode is **Apply**, when the delegate unit presses the Speak key, it will enter in applying state. The chairman unit with ID A001 will determine whether to give the right for this delegate to hold a speech.

At this time, the indicators of Speak key and Priority key blink red and the LED ring indicator keeps blinking red and green alternated circularly.

Note: Speak key: agree, Priority button: not agree.

5.2.2 Delegate unit:

Limited by capacity, speech mode and speech time

1. Limited by capacity

Capacity means the total number of live delegate microphones which can be switched on synchronously, the value ranges from 1 to 6. Please refer to *Limited by speech mode* below for detailed introductions.

2. Limited by speech mode

- OPEN (queue)

a) Not at the maximum speech capacity, delegate unit presses Speak key to switch on the microphone.

b) At the maximum speech capacity, other delegate units can only enter the applying

queue, meanwhile, the LED indicator ring of microphone will blink green. When one live microphone is off, the microphone of the delegate unit who firstly enter into the queue will be automatically turned on.

- FIFO (first in first out)

a) Not at the maximum speech capacity, delegate unit presses Speak key to begin a speech.

b) At the maximum speech capacity, the last delegate unit entered will replace the first live delegate unit to keep the same capacity.

- Apply

a) Not at the maximum speech capacity, the delegate unit presses the Speak key, it will enter into applying state, and its microphone can only be switched on by the chairman unit of highest right.

b) At the maximum speech capacity, no more delegate unit is able to apply a speech.

- PTT (push-to-talk)

a) Not at the maximum speech capacity, press and hold on the Speak key on the delegate, and then it will be switched on. Release this button to finish the speech.

b) At the maximum speech capacity, no more delegate microphone will be switched on.

- VOICE (voice-activated)

a) Not at the maximum speech capacity, speak and focus close to the microphone, and then it will recognize your voice and switch on your microphone. After you finish your speech, the microphone will be automatically switched off when it reaches at the limited time.

b) At the maximum speech capacity, no more delegate microphone will be switched on.

3. Limited by speech time

When it is about to reach at the given time, the indicator of the delegate unit which is speaking will turn green and blink to remind you several seconds (set by yourself) in advance. This unit will be switched off when reaches at the limited time.

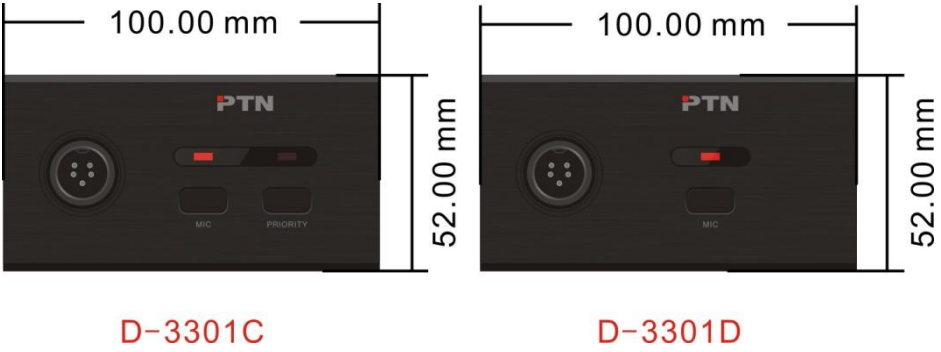
Note: To stop speaking or applying a speech, please press the Speak key again. The LED ring of microphone will be off and the built-in speaker will be on if not connecting with a headphone (when take off the headphone, the built-in speaker will be automatically turned on).

6. Specifications

D-3300		D-3300-C/D-3300-D	
Power Consumption	1.1W	Power Consumption	0.2W
Color	Black	Microphone Type	Capacitive
Weight（g）	460g	Frequency liResponse	100-15KHz
Case Dimension	W170×D104×H38mm	Microphone Sensitivity	－46dBV/Pa
		Color	Black
		Weight (with microphone)	330g
		Case Dimension	W100×D52×H65

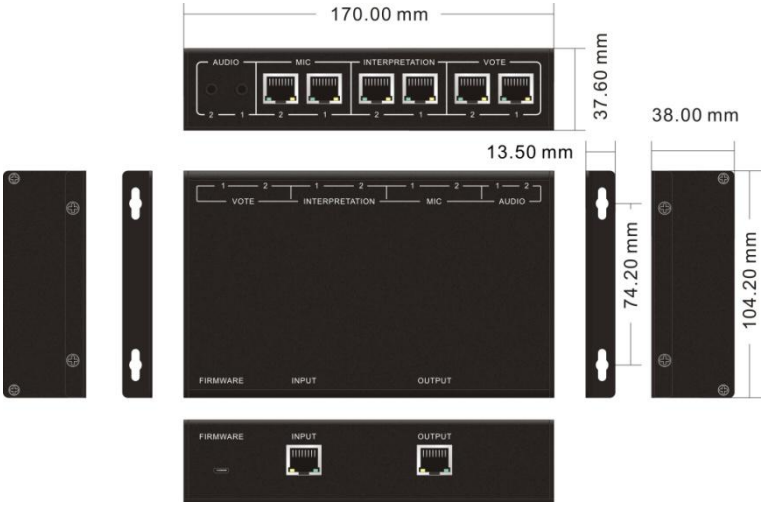
7. Dimension

7.1 Dimension of Embedded Speech Module



D-3301C　　D-3301D

7.2 Dimension of Audio Box



8. Troubleshooting & Maintenance

1) If the units cannot be energized

- Check whether the cables are connected correctly or whether they are loose
- Check if the control unit is energized. (Speech modules are energized by control unit.)

2) When the delegate unit is not able to speak:

- Check the set speech capacity and speech mode.
- Check if the chairman unit is pressing the Priority key.

3) If the microphone is on, but there is no sound:

- Check if the “1” port of the audio box is connected with the speech module with code “4”, or the “2” port of the audio box is connected with the speech module with code “1”.

4) If the static becomes stronger when connecting the speech module, it’s probably due to bad grounding of the control unit, please check the grounding and make sure if the control unit is connected well, otherwise it would damage the control unit.

5) In Apply speech mode, if there is no response in chairman speech module when a delegate is applying for speaking, check whether the chairman unit with the address A001 has set as chairman unit.

6) If the unit cannot be controlled through the panel buttons or control software, the unit may have already been broken. Please send it to the dealer for repairing.

9. Safety Operation Guide

In order to guarantee the reliable operation of the equipments and safety of the staff, please abide by the following proceeding in installation, using and maintenance:

1) Before cleaning the device, please turn off the power and the connection between different units. And the cleaning rag MUST be dry and soft.

2) Without permission, DO NOT use any other device or connectors unmatched with this system, in case of accident or increasing the damage of the device.

3) Do not put the device in a place of too hot or too cold.

4) DO NOT splash any chemistry substance or liquid in the equipment or around.

5) Put the device in a place of flat and steady, in case of damage due to vibration.

6) The extension cable should be away from people's activity range, and no heavy thing upon it is allowed in case of extrusion.

7) As the power generating heat when running, the working environment should be maintained fine ventilation, in case of damage caused by overheat.

8) Cut off the general power switch in humid weather or left unused for long time.

9) Before following operation, ensure that the alternating current wire is pull out of the power supply:

- Take off or reship any components of the equipment.
- Take off or rejoin any pin or other link of the equipment.

10) The number of delegate units can be connected in digital conference system is 250. Otherwise it may cause some abnormal cases when working. Please contact us if you have any other requirements.

11) As to non-professional or without permission, please DO NOT try to open the casing of the equipment, DO NOT repair it on your own, in case of accident or increasing the damage of the device.

10. After-sales Service

1) If there appear some problems when running the device, please check and deal with the problems reference to this user manual. Any transport costs are borne by the users during the warranty.

2) You can email to our after-sales department or make a call, please tell us the following information about your cases.

- Product version and name.
- Detailed failure situations.
- The formation of the cases.

3) We offer products for all three-year warranty, which starts from the first day you buy this product (The purchase invoice shall prevail).

4) Any problem is same with one of the following cases listed, we will not offer warranty service but offer for charge.

- Beyond the warranty.
- Damage due to incorrectly usage, keeping or repairing.
- Damage due to device assembly operations by the maintenance company non-assigned.
- No certificate or invoice as the proof of warranty.
- The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
- Damage caused by force majeure.

Remarks: For any questions or problems, please try to get help from your local dealer, or to email PTN at: support@PTN-electronics.com.